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# ICT fabric in Rural Governance - A case study of House Tax Collection

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**Abstract**

Information flow across all stakeholders in rural villages in very essential for growth of people across all domain

## Introduction

Information flow across all stakeholders in rural villages in very essential for growth of people across all domain. The ICT infrastructure in villages is increasing and people are using social network for communicating. In this scenario having proper ICT fabric need to be in place for automatization of various activities which can contribute to growth of Panchayats.

Generally, any village administration face various challenges like in executing its activities specifically the revenue collection from the people of the village. A ICT based platform for automating various governanceactivities and for automating all the processes to the maximum extent. Here in this study, an attempt has been made to develop a ICT framework for automating a regular task like house tax collection, to enhance the finances for bodies related to village administration.

## Discussion:

The framework for House tax collections implements role based access to different stakeholders of the platform like Admin, Incharge of Panchayat, Gross root worker, and general public. Grass root worker can register any house owner with his complete



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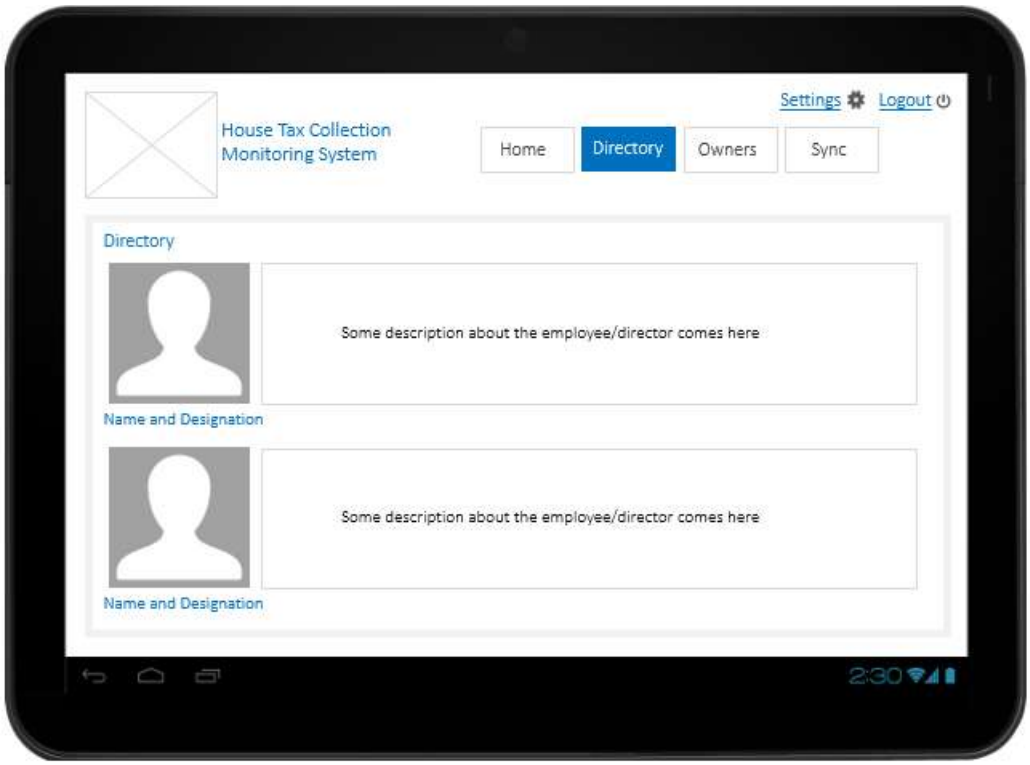
details like AADHAAR, Mobile, Bank Account and his/her House details etc. Grass root worker will have access to the directory of owners and houses in his jurisdiction.

Mobile app interface showing Directory of Owners:




Mobile app interface showing Search facility to find owners:



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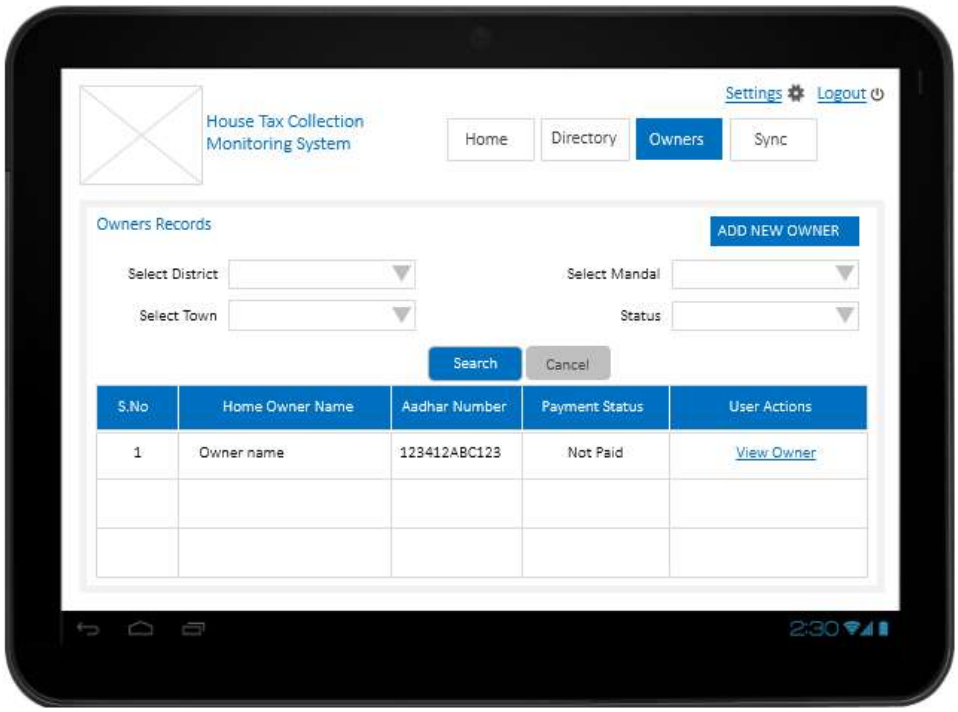


The application will facilitate the role based access and tax collectors belonging to one revenue village can see the information about the owner who only fall under his/her jurisdiction, thus enabling the role based secure access. There will be a facility for admin and Head of the village to send announcements across hierarchy. Further they can send the required documents as attachments. Admin can add new roles and users as and when required. This is implemented using “One Way Syncing” and “Two way syncing” methodologies. One way syncing allows flow of information from Tablet to Cloud and where as “Two way syncing” allows bi-directional flow of information from Tablet to Cloud and vice versa.



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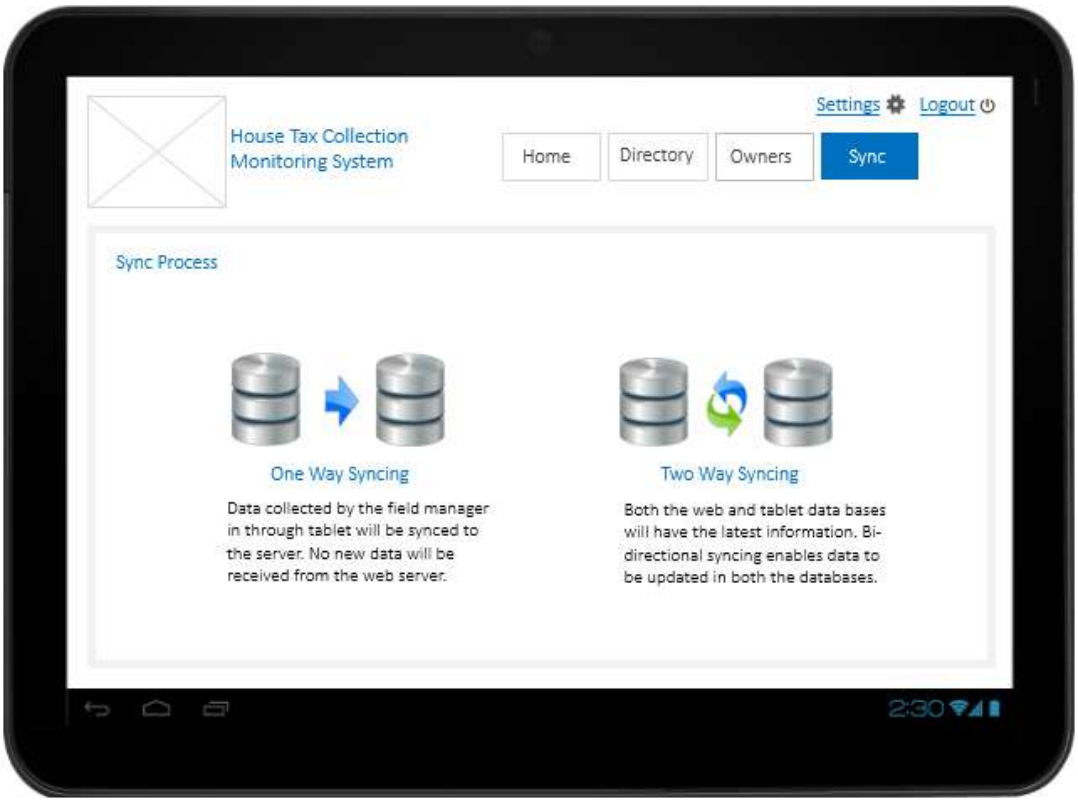




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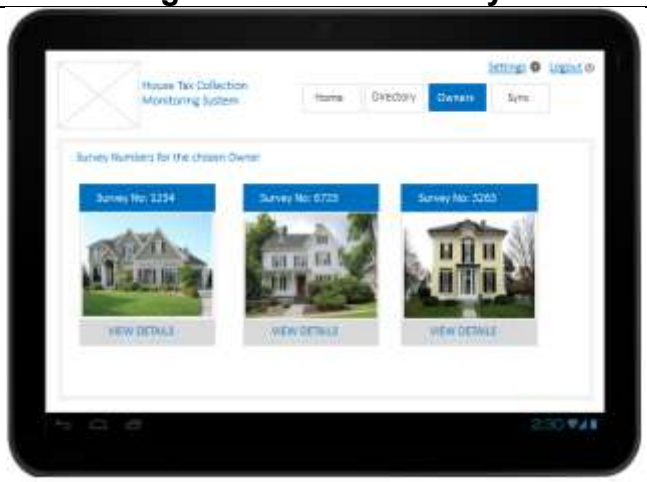
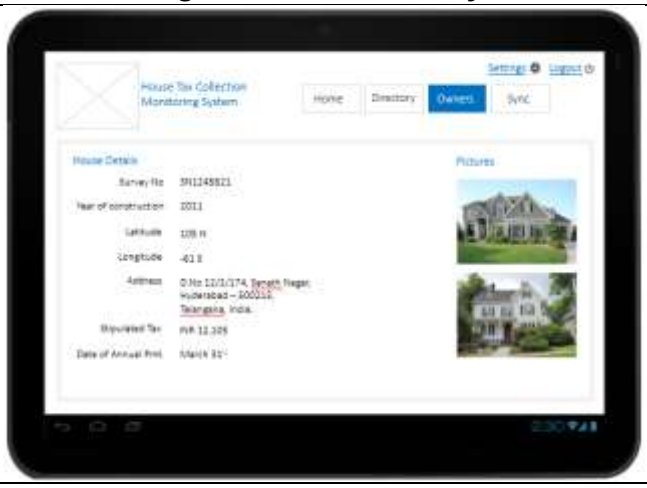
## System architecture:

The application shall be a cloud based application and users shall access this using mobile app and shall implement role based access.

<table>
<tr><td> </td><td> </td></tr>
<tr><td>Adding new Owner to the System</td><td>Adding new house to the system</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Survey numbers where houses of choosen owner are present</td><td>Home Page of - House Details</td></tr>
</table>

The application covers complete cycle of Tax collection activities i.e registration of owners and houses with the platform with complete plan of activities, assigning users with responsibilities, capturing of the activities executionand daily report of tax collection.



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The following platform interfacesallows the administrator to search for the owners and houses across revenue villages and across different location by using different criteria.

Features of the System:

Tablet version of the application will be useful for the Field Agent/Manager to enter the Home Owner details into the application.Field Agent will be able to enter the basic information about the owner and then their home details.Since there is a possibility for home owners having multiple homes, they are identified by their survey numbers. So, the app shall be able to accommodate multiple homes for a single user, by considering the survey number of the house.The app shall be able to perform one-way and two-way sync to sync data to the server and then sync the data back from the server. The app is only for the Field Agent to be able to gather the home owner information. We do not foresee a need for having Director/Admin access the app. This is completely based on our understanding of the system and it can be customized to any extent possible.

The following are the roles we have identified for the system – Admin, Director, Home Owner and Field Agent. Director shall be shown all the records collected in the app version. Director shall be able to generate reports based on various parameters which will be explained a little further. Upload any new rules/notifications/changes in policies/procedures etc. into the system.Home OwnerWill be able to create an account for himself and see the tax history and the next payment date.He/she will be able to see various notifications released by the department and keep themselves updated.Admin UserWill be able to perform user management – create, disable, edit user information.Will be able to upload notifications/rules/policy changes to the system.



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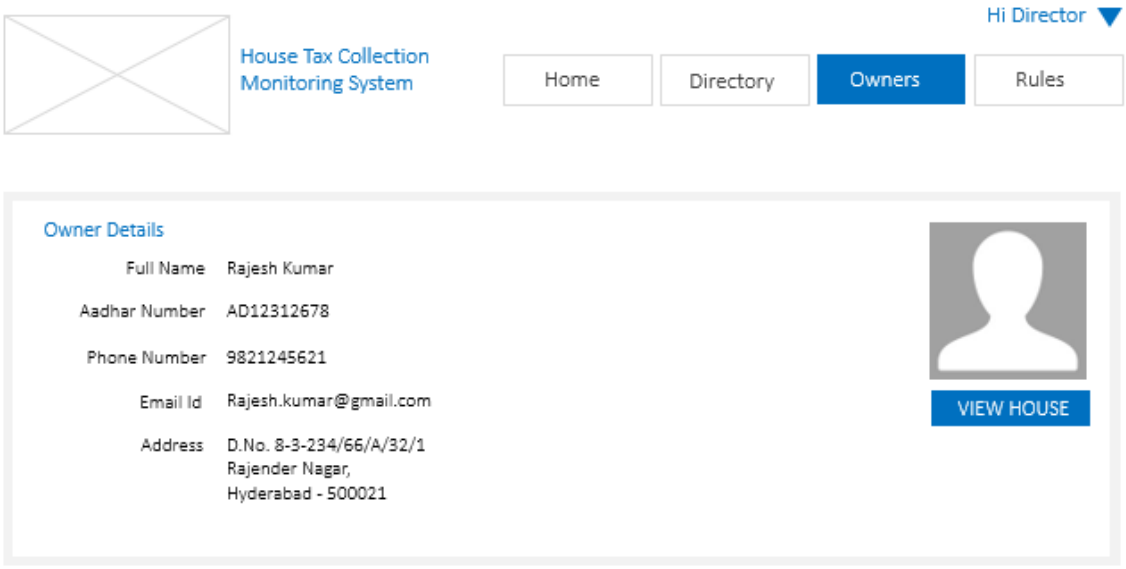
Home Owner details collected by the Field Agent is shown in this screen. On clicking “View Home”, the app will display the available homes for a user ordered by survey number (only when multiple homes are available).




The below screen Shows the House details for the chosen survey number. Director can view the Tax History for this house by clicking on “View Tax History”.



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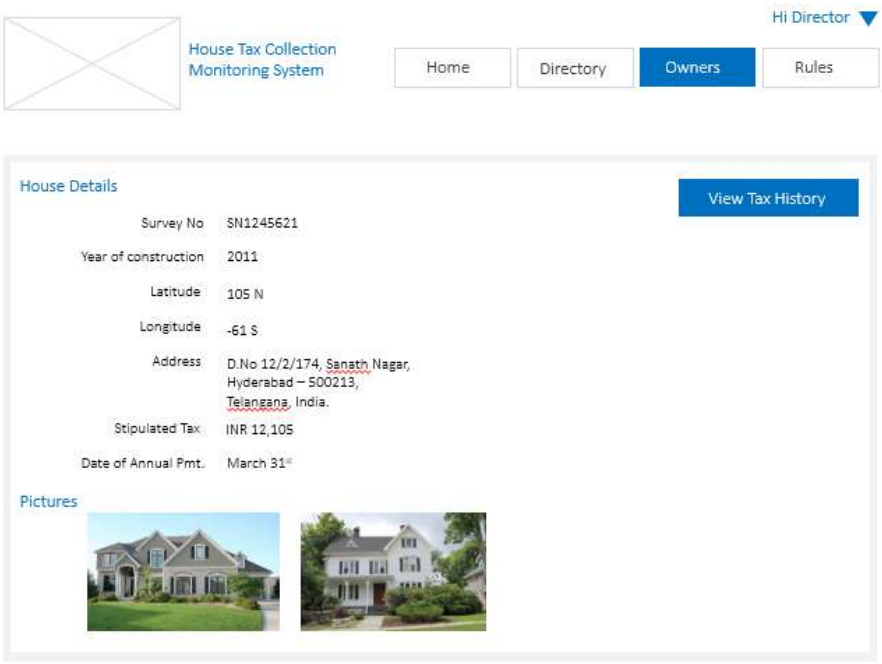




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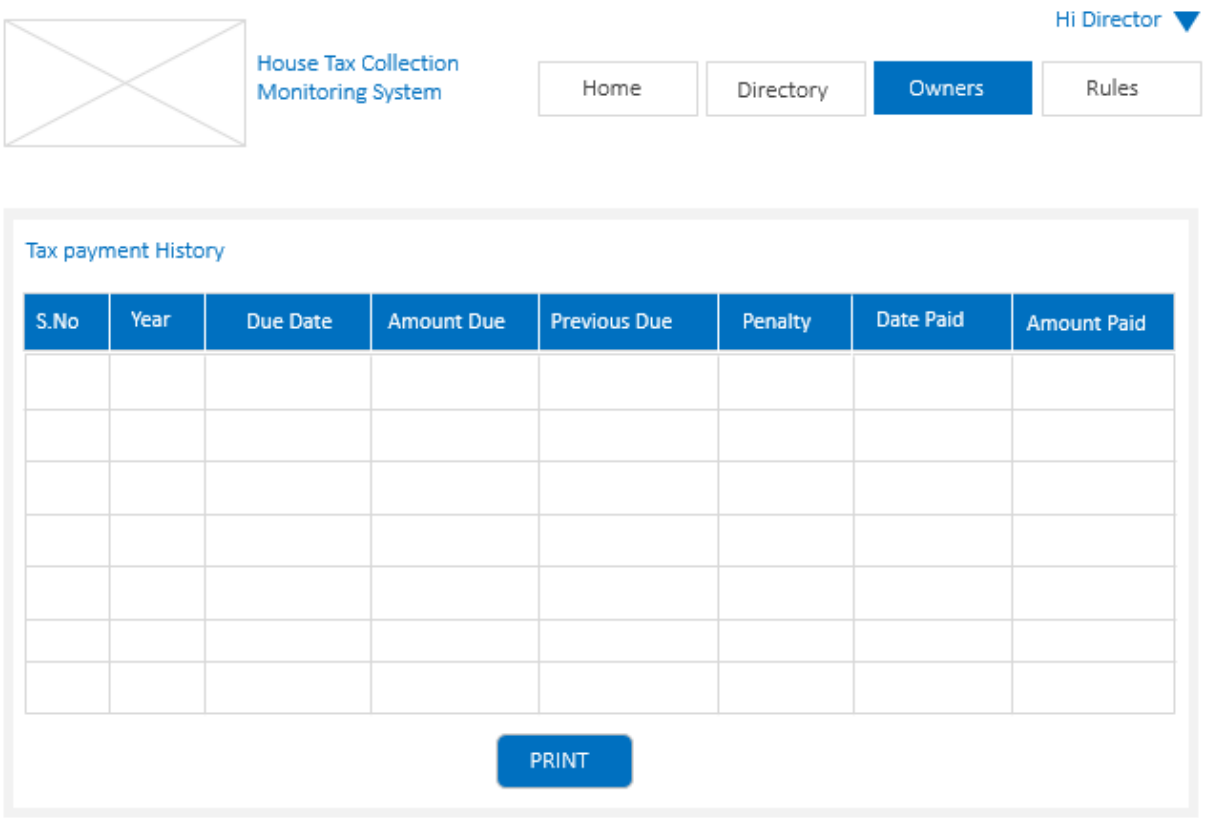
Report generated by the system based on the information available for the house in the given survey number. Director can print this report.




If the director wants to generate a report of the records fetched based on the search criteria provided on slide 4, this is how we plan to display the report. Report can be downloaded as a PDF or can be printed.



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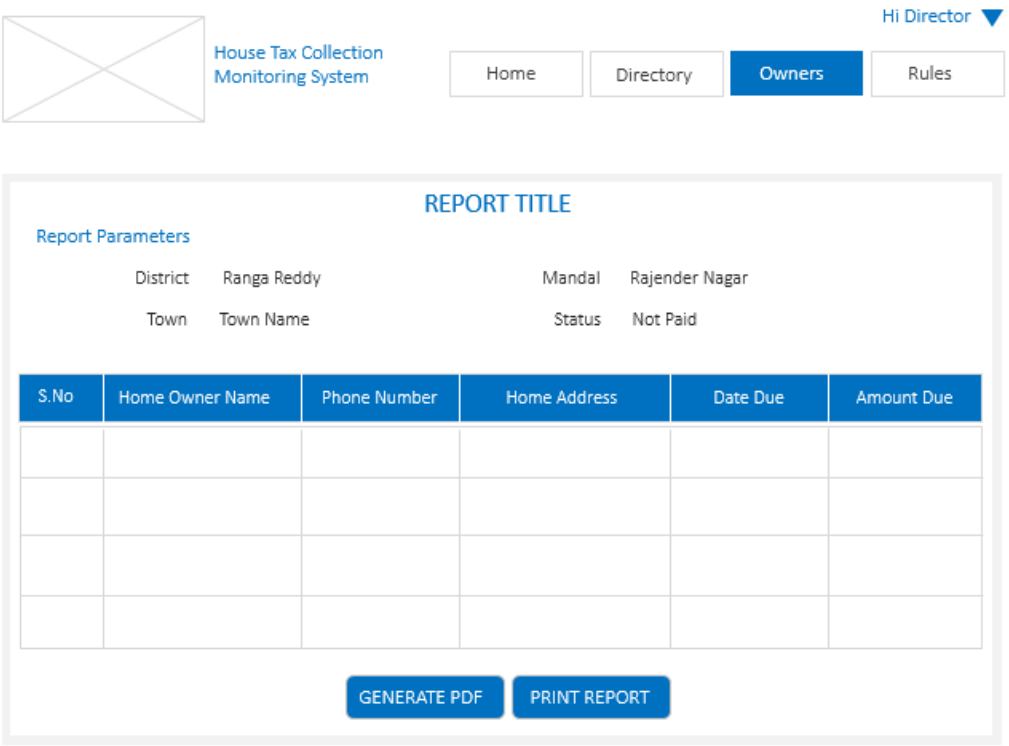


**Conclusion**:

The e-governance applications like House tax collection System are very useful to the administrative bodies of Indian revenue villages, as the application can be customized to automatethe whole process of communication to and fro of different stake holders of administrative bodies. Huge impact can be observed with the implementation of these kind of ICT Fabrics of e-Governance, as they save the time and resources. This kind of application need to be implemented in all the revenue villages of different developing countriesto see the greater impact.

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